

## AMENDMENTS

### In the Claims

Please amend the claims as follows:

#### **1-177. (canceled)**

#### **178. (currently amended)** A method comprising:

providing a nucleic acid, labeled with a unit specific marker, and  
detecting, while the nucleic acid is moved relative to electromagnetic radiation by a  
tethered polymerase, at least one FRET-independent fluorescent signal emitted from the unit  
specific marker bound to the nucleic acid after exposure to electromagnetic radiation,  
storing a signature of signals;  
~~wherein the nucleic acid is moved relative to the electromagnetic radiation by a~~  
~~polymerase, and the unit specific marker is labeled with a fluorophore that emits the fluorescent~~  
~~signal in the absence of fluorescence resonance energy transfer.~~

#### **179. (currently amended)** A method for detecting a unit specific marker bound to a nucleic acid comprising

moving a nucleic acid past electromagnetic radiation using a tethered polymerase,  
exposing a fluorescently labeled unit specific marker bound to the nucleic acid to  
electromagnetic radiation, and  
detecting an electromagnetic radiation signal from the fluorescently labeled unit specific  
marker in the absence of fluorescence resonance energy transfer.

#### **180. (previously presented)** The method of claim 178, wherein the electromagnetic radiation is transported through a waveguide.

#### **181. (previously presented)** The method of claim 179, wherein the electromagnetic radiation is transported through a waveguide.

**182. (new)** The method of claim 178, further including storing a signature of signals.

**183. (new)** The method of claim 182, wherein the electromagnetic radiation is transported through a waveguide.